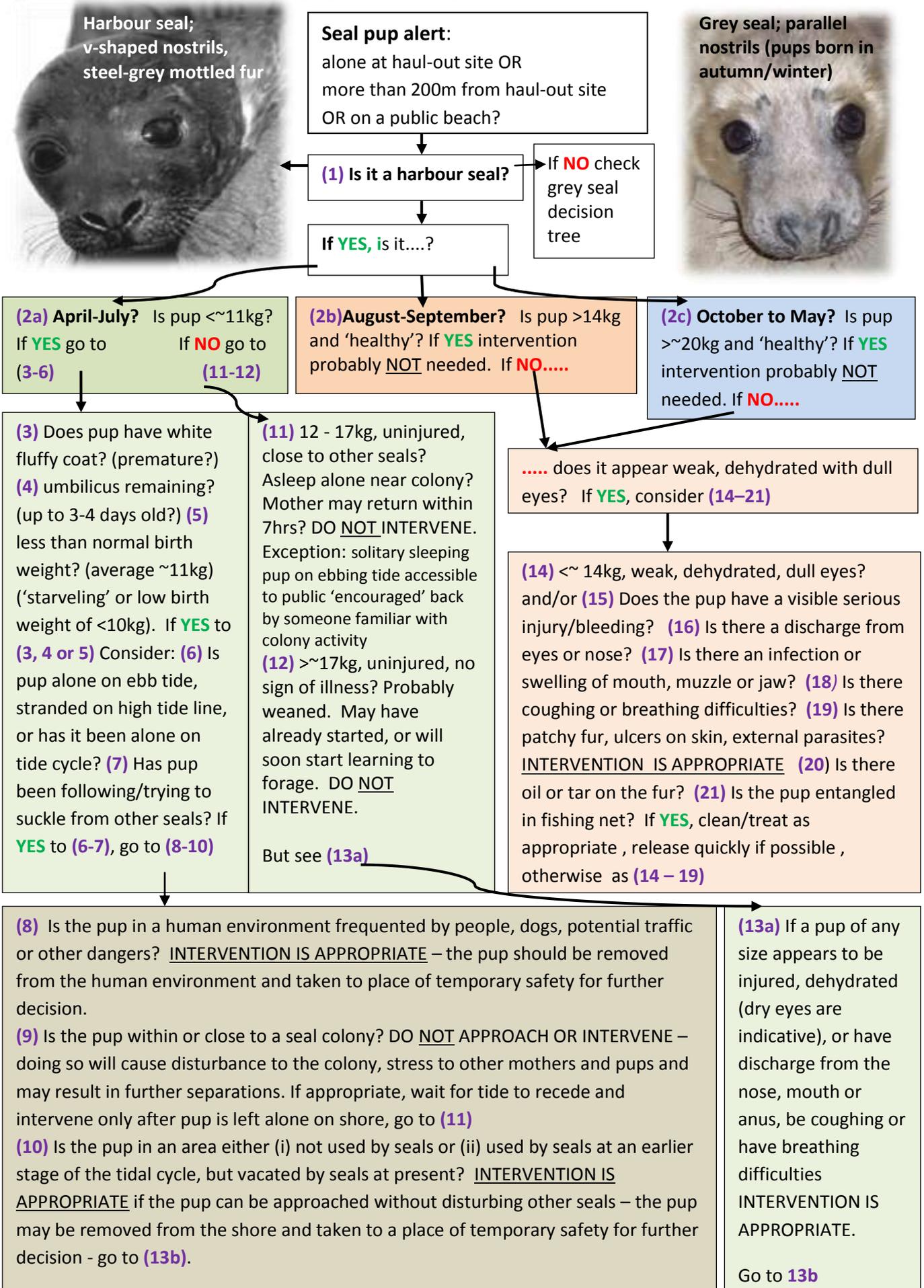


## Harbour seal pup stranding: intervention 'decision tree'



Colour-coded panels are considered in more detail overleaf

**(2a) June to early July** (time varying with region) is the usual season when harbour seal pups are newborn, although premature pups (with a white lanugo coat) may be born as early as April-May. Newborn pups may need humane intervention if they become permanently separated from their mothers, either at birth or shortly afterwards. This can happen with premature or low birth weight pups (generally not viable in the sea at <~10 kg), or if the mother is inexperienced, or if mother and pup are separated shortly after birth by human disturbance or due to a storm or other misadventure.

**(11)** Harbour seal mothers have to feed from a week to 10 days after birth in order to sustain their milk supply. Therefore pups >12–13kg may be left alone while the mother is away fishing. Pups left in this way usually swim or lie near other pups and their mothers and follow them when they move around the haul-out area, but sometimes the pup may sleep deeply and be left alone at low tide when the other seals have moved to another site. Such sleeping pups will usually eventually wake and move to join the rest of the colony. Healthy pups are fully weaned by their mothers at 3–4 weeks at body weights usually at least 18 kg and averaging 20–24 kg (depending on region). Healthy, newly weaned pups may be seen usually from mid-July to early August.

**(2b) August and September** is the immediate post-weaning period during which the pups are learning to forage. Pups may lose up to 20% of their body weight during this period. Pups successfully surviving this stage of development should learn to feed within ~2 weeks post-weaning and start to regain lost weight after the first month. Therefore healthy pups at this season may weigh as little as 14–15 kg for a brief period. However, pups which are too slow to find sufficient food become weak and may be susceptible to opportunistic bacterial infections and also to serious lungworm infection (most harbour seal pups become infected with lungworm as soon as they start to feed on fish, although this is usually not a problem for well-fed, healthy pups, who gradually acquire immunity).

All these conditions **(14–19)** seen in a pup stranded alone **August-September** (or **late July** in some cases) may be secondary effects of the pup having failed to feed adequately during the post-weaning period. Coughing and breathing difficulties often indicate parasitic (lungworm) pneumonia. Experience in rehab facilities has shown that many pups with mild to moderate injuries and infections can be treated successfully, returned to health and released again. However, such rehabilitation cannot address the problem of why the pup originally failed to feed adequately. Large numbers of such stranded pups in any one area and season may indicate insufficient food availability – and therefore in cases of large numbers, humane euthanasia may be an option to consider, reserving the rehabilitation option for small numbers and individual cases. INTERVENTION IS APPROPRIATE. Conduct triage either in situ or in rehabilitation centre. Consider either rehabilitation or euthanasia, as considered appropriate in conjunction with local authorities.

**(13b)** The pup may be removed from the shore and taken to a place of temporary safety for further decision. Alternatively, no action may be taken, or if the pup is considered to be suffering and to be too ill to recover without intervention, the pup may be humanely euthanized in situ by a representative of the appropriate authority.

**(2c)** From **October to May**, there are usually fewer pups stranding, although those entering the winter months at a relatively low body weight may still be at risk.